United States General Accounting Office

GAO

Report to the Honorable
Esteban E. Torres
House of Representatives

March 1993

1-DOLLAR COIN

Reintroduction Could Save Millions if Properly Managed

GAO/GGD-93-56

GAO United States
General Accounting Office
Washington, D.C. 20548

General Government Division

B-239690

March 11, 1993

The Honorable Esteban E. Torres
House of Representatives

Dear Mr. Torres:

This report responds to your request as Chairman of the former Subcommittee on Consumer Affairs and Coinage of the House Committee on Banking, Finance and Urban Affairs that we update some of the findings in our May 1990 report, NATIONAL COINAGE PROPOSALS: Limited Public Demand for New Dollar Coin or Elimination of Pennies (GAO/GGD-90-88), primarily by reviewing the Canadian experience with introducing a 1-dollar coin and eliminating the 1-dollar note.

As arranged with your staff, we are sending copies of this report to the Subcommittee on Consumer Credit and Insurance of the House Committee on Banking, Finance and Urban Affairs, and other interested congressional committees; the Secretary of the Treasury; the Directors of the Office of Management and Budget, the U.S. Mint, and the Bureau of Engraving and Printing; the Chairman of the Board of Governors of the Federal Reserve System; and other interested parties.

The major contributors to this report were John S. Baldwin, Sr., Assistant Director; and Robert Homan, Evaluator-in-Charge. If you have any questions about this report, please contact me on (202) 512-7824.

Sincerely yours,

L. Nye Stevens

L. Nye Stevens
Director, Planning and Reporting

Executive Summary

Purpose

Australia, Canada, Japan, and the major Western European countries all now use a coin for monetary transactions at, and in many cases well above, the level for which Americans use the paper dollar. The United States introduced the Susan B. Anthony 1-dollar coin in 1979, but it was not accepted by the public. In considering recent legislative proposals to reintroduce a 1-dollar coin in the United States, on March 28, 1992, the Chairman of the former House Banking Subcommittee on Consumer Affairs and Coinage asked GAO to examine Canada's experience. Canada introduced a new 1-dollar coin in 1987 and 2 years later stopped issuing its 1-dollar note. GAO was asked to determine whether public resistance to the Canadian dollar coin was persistent or temporary.

Background

Two units of the Treasury Department—the U.S. Mint and the Bureau of Engraving and Printing—produce coins and notes, respectively, in the United States. The average 1-dollar note lasts about 1.4 years in circulation before wearing out and needing to be replaced by the Federal Reserve System. By contrast, coins last about 30 years in circulation.

In a May 1990 report on proposals to introduce the dollar coin in the United States, using a Federal Reserve model, GAO estimated that the government could save an average of $318 million per year if the 1-dollar coin were widely accepted and used. [1] GAO said the savings would accrue primarily by reducing money production and processing costs and the need to borrow from the public to finance the debt. However, GAO also said that widespread use of a coin would be unlikely unless Congress and the administration jointly reached and sustained an agreement to eliminate the dollar note in the face of an initial negative public reaction.

GAO also reported that the government did not effectively manage the introduction of the Susan B. Anthony 1-dollar coin because the 1-dollar note was not simultaneously eliminated, the coin too closely resembled the quarter, and an effective promotion effort was not made. GAO noted five essential ingredients for a successful conversion: (1) the dollar note would have to be eliminated, (2) a reasonable transition period would be needed, (3) the coin would have to be well designed, (4) adequate public awareness of the change would be needed, and (5) administration and congressional support would be necessary. (See p. 10.)

[1]NATIONAL COINAGE PROPOSALS: Limited Public Demand for New Dollar Coin or Elimination of Pennies, May 23, 1990 (GAO/GGD-90-88).

According to a 1992 Federal Reserve study, the United States government could save an average of $395 million per year by substituting the 1-dollar note with the 1-dollar coin. The Federal Reserve's estimate is based on the model contained in GAO's May 1990 report, with updated money circulation and production cost information. (See p. 23.)

Canada introduced a new 1-dollar coin on June 30, 1987. The Bank of Canada stopped issuing dollar notes on June 30, 1989. Over 600 million 1-dollar coins are now in circulation in Canada. The Canadian government estimated the conversion saved the government $450 million (Canadian) in the 5-year period from 1987 to 1991. (See pp. 11 and 22.)

Countries such as Australia, France, Germany, Japan, The Netherlands, Norway, and Spain have also successfully put high-denomination coins into circulation and phased out notes of the same values. All of these countries faced and withstood initial public resistance to the conversions. (See p. 12.)

Results in Brief

The results of six Gallup surveys taken from 1986 to 1992 concerning Canadian attitudes toward the 1-dollar coin showed that the majority of public resistance to Canada's 1-dollar coin was limited to the short term. A 1992 Gallup survey showed that disapproval of the coin had fallen to its lowest point—18 percent of those surveyed—compared to 36 percent in July 1988. Similarly, businesses and associations GAO surveyed said that the majority of public resistance lasted from between 3 months and 2 years.

GAO identified no reasons to believe that the United States' experience in introducing a new 1-dollar coin could not be similar to Canada's. The Canadian experience with introducing a 1-dollar coin provides a model of success for the United States to follow. First, the Canadian government introduced a well-designed, distinctive 1-dollar coin and then withdrew the 1-dollar note from circulation. Second, the Canadian government anticipated and withstood public resistance by providing a champion of the conversion—the Royal Canadian Mint—and the leadership needed to overcome the early resistance.

GAO believes that public resistance to converting to a coin dollar could be minor and short-lived and could be properly managed, as it was in Canada. GAO also believes that in an environment of difficult and unpopular deficit reduction measures, the alternative of securing $395 million in annual

budget savings through updating our coinage is likely to be a relatively painless sacrifice for most Americans.

GAO's Analysis

Canadian Resistance Limited to the Short Term

The majority of public resistance to the Canadian 1-dollar coin was limited in duration. According to an August 1992 survey of over 1,000 randomly selected Canadians, public resistance to the Canadian dollar coin had decreased since it was introduced. Thirty-two percent of Canadians surveyed felt more favorable about the coin than when it was introduced; only 7 percent were less favorable. Forty-nine percent of the Canadians said they approved of the dollar coin, 32 percent felt neutral about it, 18 percent disapproved of it, and 1 percent refused to answer or didn't know. This compares to a July 1988 Gallup poll that indicated 39 percent of Canadians surveyed approved of the coin, 23 percent were neutral, 36 percent disapproved, and 2 percent refused to answer or didn't know.

In April 1992, GAO sent questionnaires to Canadian businesses and associations that would be affected significantly by the conversion, including currency printers, transit companies, an armored car service, a taxicab company, an association of grocers, an association of blind citizens, and an automatic merchandising association. The companies and associations said that the majority of public resistance to Canada's 1-dollar coin lasted from between 3 months to 2 years. They said positive effects of the conversion included the ability to use the coins in vending machines and cost savings to the government. Complaints about the coin included its weight and that some vending machines were not yet equipped to handle it.

In Canada, the Royal Canadian Mint championed the conversion and was responsible for handling initial public resistance to the 1-dollar coin, which a Mint official said included fewer than 100 letters of complaint and negative press coverage. The Mint responded to the letters of complaint about the coin that had been forwarded by members of Parliament. To counter initial negative news coverage about the conversion, Mint officials actively promoted the coin in interviews with the media. GAO believes that resistance also could be overcome in the United States if the conversion were properly managed. (See pp. 16 to 22.)

Potential Savings to the United States Government

A 1992 Federal Reserve study indicated that the United States government could save $395 million per year on average over 30 years by substituting a 1-dollar note with a 1-dollar coin. The annual average savings would consist of (1) $109 million from not having to print dollar notes, (2) $47 million in lower Federal Reserve processing costs of notes in circulation, and (3) $430 million in interest avoided from the decreased government borrowing resulting from seigniorage [2] recognized on a dollar coin, less (4) $20 million in start-up costs, and (5) $171 million in lost earnings on 1-dollar notes issued by the Federal Reserve System.

GAO believes that the Federal Reserve's 1992 estimate is reasonable. It is higher than GAO's 1990 estimate because the Federal Reserve used more recent production cost and coin and currency circulation data.

GAO also believes that withstanding the public resistance to converting to a dollar coin would be more palatable to Congress and to the public than raising taxes or reducing federal spending by a comparable $395 million per year. Congress and the executive branch would have to lead rather than follow public opinion for the conversion to succeed. With good planning and determination, GAO believes a successful conversion is not only possible but also beneficial. (See pp. 23 and 24.)

Lessons Learned From Failed Introduction of the Susan B. Anthony 1-Dollar Coin

In addition to the successful Canadian experience, lessons learned from the failed introduction of the Susan B. Anthony 1-dollar coin in 1979 are also relevant to the decision about whether to introduce a dollar coin. As GAO noted in 1990, the government did not successfully introduce the Susan B. Anthony coin, primarily because the 1-dollar note was not simultaneously eliminated and the coin too closely resembled the quarter. Given the choice between a note they are already used to and a new coin, businesses and the public will most likely resist change and continue to use the note.

The Canadian government did not repeat the mistakes made in the American introduction of the Susan B. Anthony 1-dollar coin. Rather, the Canadian government introduced an 11-sided, gold-colored coin to make it distinctive and then withdrew the note from circulation. Also, the Royal Canadian Mint effectively handled initial public resistance to the coin by handling letters of complaint sent to Parliament and countering negative press coverage. Also, the 2-dollar note became more popular in Canada.

[2] Seigniorage is the difference between the face value of a coin and the coin's cost of production and is used to reduce the amount of government borrowing to finance the deficit.

GAO believes that a public advocate or champion of the coin also would be needed in the United States to provide leadership for the conversion and manage public relations activities and the withdrawal of the 1-dollar note. (See pp. 10, 11, 19, and 20.)

Recommendations

GAO recommends that Congress authorize the introduction of a new, well-designed 1-dollar coin and simultaneously provide for elimination of the dollar note. GAO also recommends that Congress require the Secretary of the Treasury to designate an advocate of the new coin, who would be responsible for promoting the coin and responding to public inquiries and complaints. (See p. 35.)

Agency Comments

GAO discussed a draft of this report with officials of the Royal Canadian Mint, the Bank of Canada, the Department of the Treasury, the United States Mint, the Bureau of Engraving and Printing (BEP), and Federal Reserve Board of Governors. Officials of the Royal Canadian Mint, the Bank of Canada, and the Federal Reserve Board of Governors agreed with the report and said the conclusions and recommendation in the report are well supported and reasonable. Treasury Department and Mint officials were concerned that the introduction of a U.S. 1-dollar coin might not be as successful as Canada's experience primarily because Congress, after approving the elimination of the dollar note, might subsequently reverse this decision in the face of the likely negative public reaction to the coin. BEP officials said that a dollar coin was a rational idea, but could prove to be a loser due to negative public reaction.

GAO agrees that the widespread use of a coin would be unlikely unless Congress and the administration jointly reach and sustain an agreement to eliminate the 1-dollar note. GAO also believes that Congress may be willing to make an initially unpopular choice in view of the continuing budget deficit problem, particularly if the Treasury Department championed the conversion and properly managed an expected negative public reaction. Agency comments are discussed in detail in chapter 4. (See pp. 25 to 28.)

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Introduction

Two units of the Treasury Department—the U.S. Mint and the Bureau of Engraving and Printing—produce coins and notes, respectively, in the United States. The average 1-dollar note lasts about 1.4 years in circulation before wearing out and needing to be replaced by the Federal Reserve System. By contrast, coins last about 30 years in circulation.

In our May 1990 report on proposals to introduce the dollar coin in the United States, we estimated that the government could save an average of about $318 million per year for 30 years if the 1-dollar coin were widely accepted and used. [1] In that report and subsequent House [2] and Senate [3] testimonies, we said the savings would accrue primarily by reducing production and processing costs and the need to borrow to finance the debt. However, we cautioned that widespread use would be unlikely unless Congress and the administration jointly reached and sustained an agreement to eliminate the dollar note in the face of an initial negative public reaction.

We also reported that the government did not effectively manage the introduction of the Susan B. Anthony 1-dollar coin in 1979 because the 1-dollar note was not simultaneously eliminated and because the coin too closely resembled the quarter in its appearance, size, and color. When the Treasury Department considered eliminating the 1-dollar note in 1979, 97 Members of Congress wrote to the Secretary of the Treasury objecting to the plan and urged the Secretary to prevent the elimination of the 1-dollar note. Treasury pursued the initiative no further.

Partly due to the belief that Congress would not sustain a decision to eliminate the 1-dollar note, the Treasury Department has not supported the introduction of a 1-dollar coin in recent years. While admitting that vending machines are better able to accept coins than notes, the Director of the Mint testified before Congress in June 1990 that Americans prefer notes over coins. "Apparently machines like coins, but people like bills," she said. The Mint Director cited (as had our report) an April 1990 Gallup poll indicating that 59 percent of Americans opposed legislation creating a dollar coin. She also mentioned that $425 million in Susan B. Anthony

[1]NATIONAL COINAGE PROPOSALS: Limited Public Demand for New Dollar Coin or Elimination of Pennies, May 23, 1990 (GAO/GGD-90-88).

[2]Limited Public Demand For New Dollar Coin or Elimination of Penny, May 23, 1990 (GAO/T-GGD-90-43).

[3]A New Dollar Coin Has Budgetary Savings Potential But Questionable Acceptability, June 20, 1990 (GAO/T-GGD-90-50).

1-dollar coins remained in Mint and Federal Reserve vaults. Treasury's position has not changed on this matter since 1990.

Canadian 1-Dollar Coin

According to a June 1985 Canadian House of Commons report, Canadian officials began discussing the idea of a 1-dollar coin in 1978. Transit officials, for example, said a 1-dollar coin would generate significant cost savings by simplifying fare collection tasks and reducing processing of paper notes. Vending industry officials also promoted a 1-dollar coin to increase sales. Associations of blind individuals encouraged the coin's introduction to help their members distinguish money. Telephone companies also said a 1-dollar coin would facilitate payments for long-distance telephone calls from pay phones. In 1985, the Canadian House of Commons estimated that the conversion would save the government $175 million over 20 years from not having to regularly replace worn-out paper currency.

Canadian officials decided that the success of a 1-dollar coin depended upon withdrawing the 1-dollar note from circulation, based on the experiences in other countries, including the United States, the United Kingdom, and Australia.

The Canadian government, in anticipation of a negative public reaction to the conversion, charged the Mint with managing all public relations activities with respect to the new coin. Royal Canadian Mint officials said they spent about $2 million promoting the 1-dollar coin. The Mint sent letters, counter leaflets, and posters to banks and distributed press releases explaining the reasons why the government introduced the new coin, including the estimated cost savings from the conversion. The Mint issued free note wrappers with information about the conversion. In addition, Mint officials frequently appeared on broadcast news programs and were quoted in the print media on the advantages of the coin.

Canada introduced its new 1-dollar coin on June 30, 1987. The Bank of Canada stopped issuing dollar notes on June 30, 1989. The 11-sided coin is a distinctive gold color to distinguish it from other coins, depicts a Canadian loon, and is popularly known as the "loonie."[4] About 607 million 1-dollar coins are now in circulation in Canada, which has a population of about 27 million.

[4]The original design for the Canadian 1-dollar coin included a depiction of Canadian explorers. However, when the dies were lost, the design was changed to the Canadian loon to prevent possible counterfeiting.

Other Countries Have Successfully Introduced High-Denomination Coins

Countries such as Australia, France, The Netherlands, New Zealand, Norway, Spain, and the United Kingdom have also successfully put high-denomination coins into circulation and phased out notes of the same values. They converted the currency to save production costs on short-lived notes and reduce the cost of processing notes and to respond to inflation by enabling higher value coins to be used in vending machines. All of these countries faced public resistance to the conversions. Foreign officials indicated that for a successful conversion, the government must (1) eliminate the notes, (2) carry out a public awareness campaign, and (3) expect public resistance and be steadfast in the determination to convert the currency. Table 1.1 lists selected foreign currency conversions and the value of the notes replaced.

Table 1.1: Countries With High-Denomination Coins

	Year	Note replaced	U.S. value (January 1993)
Australia	1984	1 Dollar	$0.67
	1988	2 Dollar	$1.34
Canada	1987	1 Dollar	$0.78
France	1970	5 Franc	$0.95
	1975	10 Franc	$1.90
The Netherlands	1988	5 Guilder	$2.80
New Zealand	1990	1 Dollar	$0.52
	1990	2 Dollar	$1.04
Norway	1964	5 Kroner	$0.75
	1984	10 Kroner	$1.50
Spain	1982	100 Peseta	$0.89
	1986	200 Peseta	$1.78
	1988	500 Peseta	$4.44
The United Kingdom	1983	1 Pound	$1.53

Source: GAO-generated using exchange rates from the Wall Street Journal, January 22, 1993.

Note: In testimony before a May 1992 hearing, the Executive Director of the Coin Coalition said that except for the United States, all industrialized countries have successfully introduced high-denomination coins and eliminated equivalent paper notes.

When Australia introduced a new 1-dollar coin in 1984, the public was resistant to the change. Australia also introduced a 2-dollar coin in 1988, which generated stronger negative public reaction than did the introduction of the 1-dollar coin. The Controller of the Royal Australian Mint attributed the eventual success of the new coins to the decision to withdraw the replaced dollar notes as rapidly as possible. He said:

"We were able to convince all interested parties that this was essential since in our view, co-circulation would result in the public exercising a prolonged preference for the note and an unwelcome extension of the time required to achieve acceptance of the coin....What is very clear is that in Australia adverse reaction is short-lived and other events quickly take over the media and public interest."

According to the Treasury of the United Kingdom, people are traditionally resistant to coinage changes. In 1914, for example, the U.K. introduced a pound note and stopped issuing the pound coin starting in 1915. When this conversion from coin to paper occurred, people objected to the pound being represented on paper.

Design of the Coin

In our May 1990 report, we said the Susan B. Anthony coin too closely resembled the quarter. We based this conclusion on interviews and focus groups that we held. A U.S. Mint official said that a coin's distinctiveness—its size, color, and shape—is the most important factor of its design. He said the coin should be as small as possible, yet capable of being accepted by vending machines. He cited the British pound, which is smaller and thicker than the quarter, as an example of a very distinctive coin. Similarly, the Controller of the Royal Australian Mint said that the Australian 2-dollar coin is a successful design because it is thicker and heavier, though of smaller circumference, than the 1-dollar coin.

The U.S. Mint official said the coin's artwork, i.e., who or what is depicted on the coin, is a secondary factor to distinctiveness. To determine the right design, he said the Mint should meet with the parties affected by the conversion, including the public, transit officials, and vending machine representatives. He said that the more specific a dollar coin law is about the coin's design, the less flexibility the Mint will have in determining the right design.

The Mint official also said that the coin's design is irrelevant if the 1-dollar note is not withdrawn from circulation. He said that the Mint would lose money if the new coin is minted and the 1-dollar note is not withdrawn. He added that no country that has allowed its citizens to choose between using a note and coin of the same denomination has successfully introduced the coin.

The Director of the Bureau of Engraving and Printing (BEP) said a 1-dollar coin should not be a specialty item commemorating, for instance, veterans or Christopher Columbus. Rather, he said the 1-dollar coin should be a

"serious piece of currency" that people would want to use. Similarly, U.S. Mint officials said they would want the flexibility to determine the coin's size, shape, and image.

The executive director of the Coin Coalition, a group of businesses supporting the introduction of a new 1-dollar coin, said the coin should be the same size as the Susan B. Anthony 1-dollar coin. He said that if a new dollar coin is not the same size as the Susan B. Anthony coin, vending machine operators, transit companies, and other businesses that handle coins would have to retrofit their machines. According to the National Automatic Merchandising Association, about 3.5 million vending machines—or about 75 percent of drink, snack, and sandwich machines in the United States—can accept Susan B. Anthony coins. The Merchandising Association said it would cost from between $50 to $400 to retrofit a vending machine to accept coins that are different from the Susan B. Anthony coin, depending upon the extent of the size and metallic content differences.

Focus groups held for our May 1990 report generally liked the gold color of the Canadian 1-dollar coin, but they did not think that the color alone was sufficient to avoid confusion with the quarter. The focus group participants said they would still confuse such a coin with the quarter as long as the sizes were similar. They suggested increasing the proposed dollar coin's size to halfway between the size of the quarter and the half-dollar coin, with distinctive edges or a hole in the middle.

In considering the design for the Canadian 1-dollar coin, Canadian officials concluded that the coin must be capable of being accepted by vending machines in Canada. The Canadian officials said 90 percent of the vending machines in Canada were manufactured in the United States. Canadian officials also thought the coin should be good-looking, not too large or heavy, and have a distinctive color and shape. Canadian officials decided on an 11-sided coin that is the same size as the Susan B. Anthony dollar, allowing it to be accepted by vending machines. They also decided that the coin would have a gold color, which they felt portrayed a sense of high value. They said that while it costs more to mint a coin with a gold color, the higher cost is offset by the advantage of its distinctiveness, which promotes its public acceptability. Similarly, Australian officials decided on a gold color for their 1-dollar and 2-dollar coins.

Objective, Scope, and Methodology

Our primary objective was to determine whether public resistance to the Canadian dollar coin has changed since it was introduced in 1987. We also sought to update our 1990 report with regard to expected savings resulting from converting from a dollar note to a dollar coin in the United States. We hired Gallup Canada Inc. to survey Canadians' attitudes toward the 1-dollar coin. Gallup Canada surveyed 1,025 adults during August 1992, and its estimated sampling error is between 2 and 3 percent. Sample characteristics of the survey group are shown in appendix II.

To further assess the Canadian experience, we visited and interviewed officials of the Royal Canadian Mint and the Bank of Canada, who provided us with information regarding the circulation of coins and notes in Canada, the savings accrued to the government from the conversion, and their assessment of public resistance to the coin. We also sent questionnaires to Canadian businesses and associations significantly affected by the change asking how the conversion affected them. The names of the businesses and associations and their responses are contained in appendix III.

In addition, to gain another perspective, we visited the Royal Australian Mint in Canberra, Australia. We interviewed the Controller of the Mint on that country's experience with introduction of a 1-dollar coin in 1984 and a 2-dollar coin in 1988, and we analyzed data on the coins' acceptance by the population.

We also interviewed officials at the Bureau of Engraving and Printing and the Mint regarding their views on converting from production of 1-dollar notes to 1-dollar coins. We also reviewed May 1992 congressional testimony before the House Budget Task Force on Economic Policy, Projects, and Revenues of the House Committee on the Budget on the proposed dollar coin legislation, which included a Federal Reserve estimate of the savings the government could realize from converting from the 1-dollar note to the 1-dollar coin. We also reviewed a 1992 Federal Reserve study of estimated conversion savings and compared it to our 1990 study. We met with Federal Reserve officials to discuss the differences between the two studies.

We did our work from June 1992 to February 1993 in accordance with generally accepted government auditing standards. We discussed our findings with officials from the Treasury Department, Mint, BEP, and the Federal Reserve Board and incorporated their comments in this report where appropriate.

Canadian Experience

Canadian public opinion polls show that public objections to the 1-dollar coin were greatest in the first year after the coin was introduced. Knowledgeable Canadian officials believe resistance is no longer an issue. Canada anticipated and countered initial public resistance by charging Mint officials with championing the conversion. According to a Canadian Mint official, members of Parliament received fewer than 100 letters objecting to the new coin from 1985 to the present, which were forwarded to the Mint for response. Mint officials were also interviewed by the news media on the conversion and gave a positive slant to the press to help counter some of the initially negative coverage.

Canadian Public Opinion Polls

The Royal Canadian Mint commissioned five Gallup polls to assess public acceptance of the 1-dollar coin between 1986 and 1988. [1] The polls showed that public acceptance of the coin fluctuated over time, with approval rates ranging between 38 percent and 52 percent and disapproval rates ranging between 19 percent and 36 percent.

Because the Canadian Mint had not done a recent public opinion poll, we hired Gallup Canada Inc. to survey Canadian attitudes towards the dollar coin. The August 1992 survey indicated that public resistance to the Canadian dollar coin had decreased to its lowest point in the 6 years covered by the polls. [2]

As shown in table 2.1, 49 percent of the Canadians said they now approve of the dollar coin, 32 percent feel neutral about the coin, 18 percent disapprove of it, and 1 percent refused to answer or didn't know. This compares to the Gallup poll taken in January 1988—6 months after the coin was introduced—indicating that 44 percent of Canadians surveyed approved of the coin, 27 percent were neutral, 28 percent disapproved, and 1 percent refused to answer or didn't know.

We also had Gallup Canada ask Canadians whether they now (in August 1992) feel more or less favorable about the coin than they did when it was introduced. As shown in table 2.2, 32 percent felt more favorable and 7 percent felt less favorable toward the coin. Table 2.3 and figure 2.1 compare the 1992 poll results to earlier polls.

[1]The polls were taken in December 1986, March 1987, July 1987, January 1988, and July 1988.

[2]In all six polls, Gallup asked "Which one of the following statements most accurately reflects your attitude towards the 1-dollar coin? I approve of the dollar coin. I feel neutral about the dollar coin. I disapprove of the dollar coin."

Table 2.1: Responses to Question Regarding Canadian Attitudes Towards the 1-Dollar Coin

Question: Which statement most accurately reflects your attitude towards the 1-dollar coin?

Response	Percent
I approve of the 1-dollar coin	49.2
I disapprove of the 1-dollar coin	17.8
I feel neutral about the 1-dollar coin	32.2
Don't know	.7
Refused to answer	.1

Source: August 1992 survey by Gallup Canada, Inc.

Table 2.2: Responses to Question Regarding Change in Canadian Attitudes Toward the 1-Dollar Coin Since 1987

Question: What are your feelings now about the 1-dollar coin in comparison to the way you felt about it when it was introduced in 1987?

Response	Percent
About the same	59.9
More favorable	31.7
Less favorable	6.9
Don't know	1.4
Refused to answer	.1

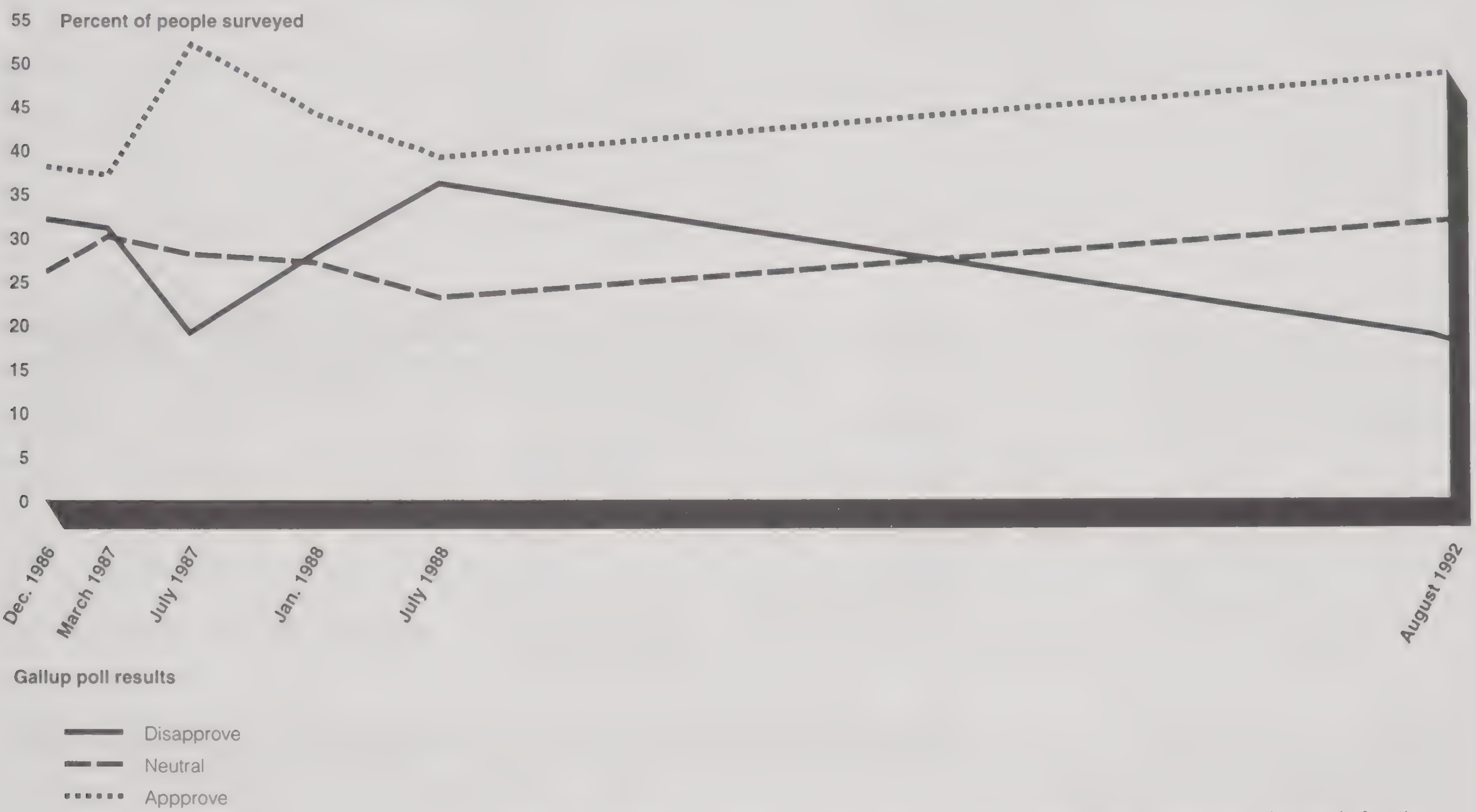
Source: August 1992 survey by Gallup Canada, Inc.

Table 2.3: Gallup Poll Results Regarding Canadian Attitudes Toward the 1-Dollar Coin From 1986 to 1992

	Percentage of Canadians Responding					
	Dec. 1986	March 1987	July 1987	Jan. 1988	July 1988	August 1992
Approve	38	37	52	44	39	49
Neutral	26	30	28	27	23	32
Disapprove	32	31	19	28	36	18
Refused to answer or didn't know	4	2	1	1	2	1

Source: Gallup surveys.

Figure 2.1: Gallup Poll Results Regarding Canadian Attitudes Toward the 1-Dollar Coin From 1986 to 1992



Note: According to Canadian Mint officials, approval rates for the 1-dollar coin dropped after the Canadian government announced in June 1988 that the 1-dollar note would not be issued after June 1989. No Gallup polls were taken on the Canadian 1-dollar coin between July 1988 and August 1992.

A Royal Canadian Mint official said there was some initial public resistance in Canada to the coin, but there is no public resistance to it today. He said that use of the coin increased substantially when the government stopped issuing dollar notes, which he said do not circulate now.

A Canadian Mint official said public resistance came in the form of letters sent to members of Parliament and in initial skeptical press coverage. He said that Parliament received fewer than 100 letters objecting to the new

coin from 1985 to the present, which were forwarded to the Royal Canadian Mint for response. He said about one-third of the letters were received before the introduction, about one-third at the time of the conversion, and about one-third after the conversion. He said that many of the early letters were written by people who were uninformed about the coin and had not yet seen it.

The Canadian Mint official also said that although some negative newspaper articles were written about the coin, most of the press coverage was positive. The official said the Royal Canadian Mint was designated to champion the conversion. As the champion of the conversion, the official said the Canadian Mint handled press inquiries, responded to letters to Parliament, and spent about $2 million in an advertising campaign promoting the coin that included distributing informational material to the banking industry, running newspaper advertisements, and displaying signs on buses in major cities. Mint officials were also interviewed by the news media on the conversion and gave a positive slant to the press to help counter some of the initially negative coverage.

The Gallup polls showed that more Canadians approved of the coin when it was introduced than they did 1 year later, when the government announced it would stop issuing the 1-dollar note the following year. The Canadian Mint official attributed this to a "honeymoon period" when the coin was first introduced, which wore off somewhat and in particular when the public realized it would no longer have a choice between the coin and the note. However, he said that the coin is widely accepted now. He said the proof of its acceptance is that 607 million 1-dollar coins are now in circulation, which is driven by demand. We believe the United States could benefit from the Canadian experience by announcing the withdrawal of the note at the same time the coin is introduced. This should help the Treasury Department manage the resistance since it will be predictable.

The Canadian Mint official said that no one in the Canadian government lost his or her job from the conversion, including members of Parliament and executive branch officials. He said the conversion turned out to be a "non-event" and contrasted it to a recent proposal to change old-age pensions in Canada, which generated 100,000 letters to Parliament.

The Canadian Mint official added that a 1-dollar coin could be successful in the United States if the 1-dollar note were eliminated and not

reintroduced. He recommended that the Mint, not Congress, should take the lead in the coin's design and championing the conversion.

The Royal Canadian Mint official also said that the main ingredient for success of the 1-dollar coin is the need for a public advocate or champion of the coin. He suggested this should be someone in the U.S. Treasury or U.S. Mint. However, administration officials are reluctant to take this role, citing the Susan B. Anthony experience of 1979. When the Treasury Department considered eliminating the dollar note, 97 Members of Congress wrote to the Secretary of the Treasury objecting to the plan and urged the Secretary to prevent the elimination of the 1-dollar note.

Opinions of Canadian Businesses and Associations

In April 1992, we sent questionnaires to Canadian businesses and associations we believe would be affected significantly by the conversion because they handle coins or manufacture currency, including currency printers, transit companies, an armored car service, a taxicab company, an association of grocers, an association of blind citizens, and an automatic merchandising association. Details of the responses received are contained in appendix II.

The companies and associations we contacted said that the length of the majority of public resistance to the new 1-dollar coin lasted from between 3 months to 2 years. Positive effects of the conversion cited included the coin's use in vending machines and savings accrued from not needing to process 1-dollar notes and because coins last longer than notes. The only complaints about the coin were that it is heavy and that some vending machines were not currently equipped to handle it.

The Canadian Urban Transit Association responded to our questionnaire that:

> "In general, public acceptance to the Canadian dollar coin has been exceptionally high. The introduction of the coin in 1987 was a good indicator in retrospect, of its public acceptance. The launch in fact proved to be very much a 'non event.'"

The Canadian Urban Transit Association also said that before the dollar coin was introduced, transit systems employed people whose sole task was to unfold and stack paper currency. After the coin was introduced, transit companies incurred costs for modifying existing or acquiring new coin-handling equipment. However, these costs were offset by not having to manually sort and process dollar notes.

The Toronto Transit Commission said, for example, that converting from a dollar note saved the company about $1 million and 40 jobs per year in processing the 1-dollar notes. The Commission reported that its note-processing staff grew from 10 employees in 1982 to 47 employees in 1987 and then decreased to 7 employees in 1991. The Montreal Transit Corporation said it needed four fewer employees as a result of the conversion.

Officials of Canada's currency printers, BA Banknote and the Canadian Bank Note Company Ltd., said discontinuing the dollar note cost them jobs and revenue. BA Banknote officials said the conversion cost the company $4.5 million in sales and about 20 to 25 jobs. The Canadian Bank Note Company said it experienced a "substantial drop" in revenue. A Canadian Bank Note Company official said there was some initial resistance to the new 1-dollar coin but acknowledged it is "largely accepted now."

The Loomis Armored Car Service of Toronto said the conversion has not affected the company financially. The company said that the additional weight of the coins is offset by the reduction in space needed for notes. Red Top Cabs in Calgary, Alberta, said the new 1-dollar coin has resulted in more tips for drivers.

The Canadian Federation of Independent Grocers surveyed 16 supermarkets across Canada and told us that:

> "[T]he Canadian public has adapted well to the dollar coin. Despite the fact that businesses have incurred costs, particularly related to transportation to and from banking institutions, the adjustment through the retail system in the food industry has been quite smooth."

The grocers association said that the coin works well in vending machines and that worn and torn dollar notes are no longer a concern. However, the association also said that dollar coins make heavier loads to and from the bank, the coins weigh down customers' wallets and purses, they require more storage space, and customers are sometimes confused when change is counted out. Further, the association noted that the dollar coin has increased the importance of the 2-dollar note generally.

The Canadian Council of the Blind said that it is easier for persons with severe visual problems to identify the 1-dollar coin from its design. In addition, the coin's color makes it easier for people with some residual vision to identify.

The Canadian Automatic Merchandising Association reported that the coin has resulted in 15- to 35-percent increases in vending sales without price increases. The association said that some existing coin handling devices still may not accept 1-dollar coins.

Canadian Cost Savings

In 1985, the Canadian House of Commons originally projected that the conversion would save the government $175 million over 20 years, assuming that 300 million notes would be replaced with 300 million coins. In December 1987, 330 million 1-dollar notes were in circulation in Canada. [3] The Bank of Canada estimates that the conversion saved $450 million (Canadian) for the Canadian government from 1987 to 1991, mainly because of higher than expected demand for 1-dollar coins. These savings were gained from issuing 600 million 1-dollar coins, less (1) the cost of producing the 1-dollar coins; (2) the loss of revenue from quarters not produced because of decreased demand; and (3) increased production of 2-dollar notes, which increased in demand. [4]

As of October 1992, Canada had about 607 million 1-dollar coins in circulation. Also as of October 1992, about 160 million 1-dollar notes remained outstanding in Canada. However, the Bank of Canada said these notes do not circulate actively. The number of quarters in circulation has decreased about 160 million since the 1-dollar coin was introduced. [5]

[3]Although the 300 million 1-dollar notes have been replaced by 600 million 1-dollar coins, Canadian Mint officials project that without the conversion, 400 million 1-dollar notes would now be in circulation.

[4]Canadian Mint officials said the 2-dollar note has increased 15 percent above the normal trend in increased circulation—not as much as they originally anticipated. They also pointed out that the 2-dollar note has always been relatively more popular in Canada than in the United States.

[5]A Bank of Canada official said the distribution system of coins was changed from the government to the banking industry at the same time of the conversion, so it is difficult to measure the effect the 1-dollar coin had on quarters.

Potential Savings to the U.S. Government

The federal government could realize significant cost savings by converting from a 1-dollar note to a 1-dollar coin—almost $400 million per year. We base these savings on a model we used for our May 1990 report as adjusted by the Federal Reserve's 1992 update of data used in that model.

Federal Reserve Savings Estimate

A May 1992 Federal Reserve study indicated that the United States government could save $395 million per year on average over 30 years by substituting a 1-dollar note with a 1-dollar coin. The annual average savings would consist of (1) $109 million from not having to print 1-dollar notes, (2) $47 million in lower Federal Reserve processing costs of notes in circulation, and (3) $430 million in interest avoided from the decreased government borrowing resulting from seigniorage recognized on a dollar coin, less (4) $20 million in start-up costs, and (5) $171 million in lost earnings on 1-dollar notes.

Most of the government's savings would come from the interest on financing the debt that the Treasury avoids from seigniorage. The Department of the Treasury defines seigniorage as the difference between the face value of a coin and the coin's cost of production. A coin's cost of production includes the metals contained in the coin, the Mint's manufacturing expenses, metal wastage from production, and the cost of distributing coins. Seignorage does not affect the size of the current budget deficit, but it does reduce the amount of money that must be borrowed from the public to finance the deficit. Thus, it reduces the cost of financing.

The Federal Reserve's savings takes into account that substituting the 1-dollar note with the 1-dollar coin would cost the Mint an average of $20 million per year in increased operational costs to make the new coins, and the Federal Reserve would lose an average of $171 million per year in decreased earnings on its portfolio of securities. [1]

The Federal Reserve's estimate is based on the model contained in our May 1990 report, with updated information on currency circulation and production costs. We reviewed the Federal Reserve's updated estimates

[1]The Federal Reserve secures its notes, which are a liability, with corresponding assets—government securities. The Federal Reserve assumed the Treasury will receive earnings on assets associated with a stock of 6 billion 1-dollar notes that would be outstanding when the new coin is introduced and the bill is withdrawn. According to the Federal Reserve, if 1-dollar notes are withdrawn and partially replaced by 2-dollar notes, the Federal Reserve's portfolio would be reduced, thereby reducing Treasury's earnings.

and believe they are reasonable. Factors that we and the Federal Reserve used are provided in appendix III.

The Federal Reserve's $395 million estimate reflects average annual savings over 30 years. That level of savings would not be achieved until the 14th year of the period. There would be a negative savings (cost) in the first year of production totalling $23 million. However, after the first year, annual savings would grow and reach $631 million in year 30.

In June 1992, the Congressional Budget Office (CBO) projected that enactment of proposed legislation to introduce a new 1-dollar coin and eliminate the dollar note in the United States would result in deficit reduction of $470 million from 1993 to 1997 and an additional $580 million from 1998 to 1999. [2] CBO did not project the savings over 30 years, as the Federal Reserve and we did. By law, CBO only projects the costs and savings expected for new legislation for 5 years.

[2]The United States One Dollar Coin Act of 1991, introduced March 5, 1991 (H.R. 1245).

Conclusions and Recommendation

Conclusions

Because of its longer life and easier processing than a note and because the seignorage recognized reduces the amount of borrowing needed to finance the deficit, a dollar coin would yield significant savings to the government. Arguments against converting to a dollar coin, based on the public's general resistance to change, can be managed and overcome, as demonstrated by the recent Canadian, Australian, and European experiences. The government must be determined to make the conversion and to support it. A successful conversion depends upon withdrawing the 1-dollar note, designating a champion within the government to handle public relations, and having a well-designed and distinctive coin.

We believe that while some percentage of the population may always prefer a paper dollar, most resistance to converting to a coin dollar stems from natural resistance to changing from what the public is used to, as evidenced by the United Kingdom's 1914-1915 conversion from a coin to a paper pound. The majority of public resistance then, and more recently there and in other countries dissipated with the passage of time.

We also believe that withstanding the public resistance to converting to a dollar coin should be more palatable to Congress and to the public than raising taxes or reducing federal spending by a comparable $395 million per year. Congress and the executive branch would have to lead rather than follow public opinion for the conversion to succeed, but with good planning and determination we believe a successful conversion is not only possible but also beneficial.

Recommendation to Congress

We recommend that Congress authorize the introduction of a new, well-designed 1-dollar coin and simultaneously provide for elimination of the 1-dollar note. We also recommend that Congress require the Secretary of the Treasury to designate an advocate of the new coin, who would be responsible for promoting the coin and responding to public inquiries and complaints.

Agency Comments

We discussed a draft of this report with officials of the Royal Canadian Mint, the Bank of Canada, the Department of the Treasury, the United States Mint, the Bureau of Engraving and Printing, and the Federal Reserve Board of Governors. Officials of the Royal Canadian Mint and the Bank of Canada said the report accurately captures the reasons why the Canadian conversion was successful. They advised that in promoting the

conversion, the message be kept simple in terms of tax savings to the public.

Officials of the Federal Reserve Board of Governors said the conclusions and recommendation in the report were well supported and reasonable. They also noted some recent increased usage of the Susan B. Anthony 1-dollar coin in the United States, particularly by transit systems.

Senior Treasury Department officials said that although the conversion could produce significant savings, they had several concerns that do not appear to favor the 1-dollar coin. They said that in spite of Canada's success, they were skeptical of success with a U.S. 1-dollar coin because (1) the U.S. central bank operates independently so that extra coordination would be required; (2) the U.S. currency system is demand based and there is no evidence of public desire for a 1-dollar coin or acceptability of change; (3) negative experiences involving the Eisenhower 1-dollar coin, the 2-dollar note, and the Susan B. Anthony dollar coin showed that Americans are not receptive to monetary change; and (4) U.S. coin production is larger than Canada's, and if the conversion failed, the cost of failure would be greater.

U.S. Mint officials, including the Director, said the conversion would need several champions, including Congress. Mint and Treasury Department officials were not sure that Congress would stand behind a decision to stop issuing 1-dollar notes when constituents complained about such a decision. Further, they thought that administration officials might not spend the time necessary to successfully champion the coin, in view of more important initiatives facing Treasury, such as the President's recently announced tax proposals. Mint officials also said that an open public forum should be held to determine what the public and vending machine industry want with respect to a new 1-dollar coin. Mint officials said they were also concerned that advocates of the 1-dollar coin, such as vending machine operators who prefer that the dollar coin be the same size as the Susan B. Anthony dollar and the copper industry, wanted the coin for their own special interests. Officials of the Mint also said that if Congress decides to authorize a new 1-dollar coin, the Mint should be allowed to decide the coin's size, shape, and image. They also said the new 1-dollar coin should be distinctive and that the coin's size should be determined considering the future possibility of higher denomination coins, such as 2- and 5-dollar coins.

BEP officials, including the Director, said it is potentially dangerous to minimize the negative reaction from the public that could result from converting to a 1-dollar coin and that our report trivializes the differences between Canadians and Americans. They said the U.S. currency system is different from Canada and other countries because it circulates worldwide. They also warned about the possibility of having to stockpile billions of dollar coins should the 1-dollar coin fail to gain public acceptance or if Congress, after approving the withdrawal of the 1-dollar note, subsequently reverses this decision due to public complaints. The BEP officials said that although a 1-dollar coin is a rational idea, it could prove to be a loser due to public reaction.

We agree with the Treasury Department that because our central bank operates independently, extra coordination would be required. That is why we are recommending a champion be designated by the Secretary of the Treasury. We also recognize that while the public probably would prefer not to convert from a 1-dollar note to a 1-dollar coin, this is not a fatal defect. Rather, it demonstrates that the government needs to show leadership and inform the public of the benefits of converting to a 1-dollar coin, comparing it to other budget-cutting proposals. We believe the failure of past alternatives to the 1-dollar note, particularly the Susan B. Anthony coin, was caused primarily by the government not initially planning and carrying out the withdrawal of the 1-dollar note. Further, while U.S. coin production is larger than that of other countries, so is the coin production of Canada compared to Australia. In spite of the differences in production, both countries successfully introduced high-denomination coins.

We agree with Mint officials that the conversion would need broad government support, particularly in Congress. We also agree that before introducing a new coin, the government should gather data from the public and businesses about what they would like the new coin to be. Further, we agree that dollar coin legislation should permit the Mint to select the coin's size, shape, and image to prevent special interest groups such as the vending industry from lobbying Congress to authorize a coin that is designed primarily to benefit the industry. We also believe that it makes sense for the new 1-dollar coin to be distinctive and that it be designed considering possible future coin issues of higher denominations.

We disagree with BEP that the differences between the United States and other countries that have successfully introduced high-denomination coins dictate the failure of introducing a 1-dollar coin in this country. Although

Canada has a parliamentary form of government, lawmakers in its House of Commons are also popularly elected and could have been turned out of office if the public wanted to punish them for their decision to stop issuing the 1-dollar note.

We agree with the Treasury Department and Mint point that Congress should not reverse a decision to stop issuing 1-dollar notes once made. We reiterated in this report the position we took in 1990—that widespread use of a 1-dollar coin would be unlikely unless Congress and the administration jointly reached and sustained an agreement to eliminate the 1-dollar note in the face of likely initial negative public reaction. However, we believe that Congress may be more willing now than it was in 1990 to make such unpopular decisions because of heightened attention to the continuing budget deficit problem. We also note that in 1979, when Members of Congress objected to the possible elimination of the 1-dollar note, Congress had not initially approved the note's elimination and was unaware of its importance to the success of a widely circulating 1-dollar coin.

Moreover, we recognize BEP's point that U.S. currency circulates worldwide. However, we believe that U.S. currency is used because of the backing the currency receives from the U.S. government, not because we are unique in using paper money at the 1-dollar level of value.

Finally, we are troubled with the Treasury Department's and the Mint's comments that a Treasury Department champion of the 1-dollar coin might not spend the time necessary to successfully champion the coin in view of higher priorities, such as promoting recent tax initiatives. Without Treasury's leadership, we believe the initiative would fail. This is why we recommend that Congress require the Secretary to designate an advocate of the new coin. This legal requirement, bolstered by Treasury's awareness of the consequences and costs of another unsuccessful dollar coin attempt, should provide ample incentive for Treasury to make the necessary concentrated effort.

Officials suggested other minor changes that we incorporated, as appropriate, throughout the report.

Survey Results on Canadian Attitudes About the 1-Dollar Coin

We hired Gallup Canada Inc. to do a telephone survey of 1,025 adults, 18 years of age and older, from August 6 through 10, 1992, regarding their attitudes about the 1-dollar coin.

Gallup Canada asked respondents four questions concerning (1) their attitude toward the dollar coin, (2) feelings about the dollar coin now compared to the way they felt when it was introduced in 1987, (3) the most important advantage of the dollar coin, and (4) most important disadvantage of the dollar coin. The responses to questions (1) and (2) are in tables 2.1 and 2.2. The responses to questions (3) and (4) are found in tables I.1 and I.2.

Table I.1: Advantages of the 1-Dollar Coin

What is the most important advantage of the 1-dollar coin?	
Response	**Percent**
No advantages	31.2
Useful/helpful	11.0
Don't know	10.1
Works well in slot and vending machines	9.7
Improvement on/better than paper dollar	6.6
Saves tax dollars/cost government less	6.0
Doesn't wear as quickly/lasts longer	6.0
Easy to save	5.3
Convenient/handy	1.7
Looks nice/better looking	1.5
Carry less change	1.3
Easier to handle	1.2
Good for public transportation	1.0
Less paper is used/saves trees/helps environment	1.0
Easy to carry	1.0
Other responses (1 percent or less)	5.4

Source: Gallup Canada Inc.

Table I.2: Disadvantages of the 1-Dollar Coin

What is the most important disadvantage of the 1-dollar coin?	
Response	**Percent**
Too bulky/awkward/heavy	50.4
No disadvantages	28.2
Don't know	6.1
Creates more change to carry	5.3
Inflationary/causes price increases	2.1
Can be confused with other coins	1.4
Easy to lose/lose them faster	1.1
Other responses (1 percent or less)	5.6

Source: Gallup Canada, Inc.

Table I.3 provides a demographic description of the individuals surveyed in the August 1992 Gallup Canada poll. Respondents are broken down by region, community size, gender, age, education, income, occupation, and mother tongue.

Table I.3: Survey Characteristics

		Number	Percent
Region	Atlantic	90	9
	Quebec	251	24
	Ontario	382	37
	Prairies	179	17
	British Columbia	123	12
Community Size	500,000 & over	493	48
	100,000 - 500,000	156	15
	10,000 - 100,000	74	7
	Under 10,000	302	29
Gender	Male	499	49
	Female	526	51
Age	18 - 29 years	284	28
	30 - 39 years	217	21
	40 - 49 years	162	16
	50 - 64	182	18
	65 years & older	150	15
	Did not state	30	3
Education[a]	Public school	88	9
	High school	404	39
	Community college	258	25

(continued)

		Number	Percent
	University	263	26
Income	Under $20,000	180	16
	$20,000 - $29,999	129	13
	$30,000 - $39,999	135	13
	$40,000 - $49,999	111	11
	$50,000 - $69,999	125	12
	$70,000 & over	119	12
	Refused	226	22
Occupation	Professional executive	260	25
	Sales/clerical	143	14
	Labor	215	21
	Housewife	92	9
	Student	63	6
	Retired/unemployed	237	23
	Did not state	15	1
Mother tongue[b]	English	623	61
	French	264	26
	Other	129	13

Source: Gallup Canada Inc.

Note: Percentages do not total to 100 due to rounding.

[a]12 did not state.

[b]Nine did not state.

Views of Canadian Businesses and Associations Regarding the 1-Dollar Coin

We sent questionnaires in April 1992 to Canadian businesses and associations that we felt would be most affected by the conversion, including currency printers, transit companies, an armored car service, a taxicab company, an association of grocers, an association of blind citizens, and an automatic merchandising association. Details of the responses received are contained in this appendix.

Table II.1: Responses to Questionnaires Regarding the Effects of the Conversion

Company/association	Positive effects of conversion	Negative effects of conversion	Cost/savings to company/association
BA Banknote	"[N]atural degrading of lowest value note to coin to permit new higher denominations."	"Cost justification questionable because original estimated volume to fill pipeline was low."	Loss of $4.5 million in sales and 20 to 25 jobs.
Canadian Automatic Merchandising Association	Sales for vending machines with 1- dollar coin acceptance increased 15 percent to 35 percent.	Some vending machines are not capable of accepting the 1-dollar coins.	Cost of adapting a machine for 1-dollar coins is $40 to $50.
Canadian Bank Note Company Ltd.	No response.	No response.	"[I]nitially a substantial drop in revenue."
Canadian Council for the Blind	People with visual problems can identify the 1- dollar coin because of its shape and color.	Weight of coin.	None.
Canadian Federation of Independent Grocers	Works well for vending machines; worn and torn dollar notes are no longer a concern.	Heavier loads to and from bank; more storage space needed; coins weigh down consumers' wallets and purses; consumers sometimes get confused when change is given.	No response.
Canadian Urban Transit Association	No response.	No response.	Costs: modifying coin handling equipment. Savings: reduced labor costs relating to handling notes.
Loomis Armored Car Service Ltd.	Cost savings to government.	Increased cost to businesses for converting to handle and accept coins and for coin storage and delivery.	None. Additional weight offset by reduction in space for notes.
Montreal Transit Corporation	"Very positive."	Weight of coins in some people's pockets.	Four fewer employees.
Red Top Cabs, Inc.	Improved tips for drivers	No response.	Neither costs nor savings were realized.
Toronto Transit Commission	Cost savings to the government, relief from problems with increased dollar note usage.	Increased weight.	Forty fewer employees/$1 million annual savings.

Table II.2: Responses to Questionnaires Regarding Resistance to the Conversion

Company/association	Initial resistance?	Current resistance?	Length of resistance
BA Banknote	Yes, primarily due to the change from the status quo but also to weight of coins.	Some due to weight of coins.	Two years to gain large acceptance.
Canadian Automatic Merchandising Association	Initial resistance due to misconception of coin size.	No.	No response.
Canadian Bank Note Ltd.	"Yes, but largely accepted now."	"Size is of some concern."	Two years.
Canadian Council for the Blind	Yes.	No.	At the most, 1 year.
Canadian Federation of Independent Grocers	Two-thirds of 16 supermarkets surveyed reported substantial resistance, 1/3 reported slight resistance.	"Little or none."	Four months.
Canadian Urban Transit Association	Acceptance was "exceptionally high." Introduction was a "non-event."	No.	No response.
Loomis Armored Car Service Ltd.	Yes.	No.	Six-month withdrawal conversion period plus a few months.
Montreal Transit Corporation	"Not at all."	No response.	None.
Red Top Cabs, Inc.	Yes.	"Not to a great extent."	Three to six months to gain large acceptance.
Toronto Transit Commission	Yes.	No response.	Two to three years (until 1989 when circulation increased).

Comparison of Factors Used in Federal Reserve and GAO Estimates

The Federal Reserve's 1992 estimate was based on the Federal Reserve model we used for our May 1990 report, with updated information on coin and currency circulation and production costs. Factors that we and the Federal Reserve used and reasons for the differences are explained on the next page.

Table III.1: Differences Between Federal Reserve and GAO Estimates

Factors	Federal Reserve	GAO	Reason for difference
Number of 1-dollar notes in circulation upon introduction of 1-dollar coin	6 billion	5 billion	The Federal Reserve used more current information; reflects increased demand since 1990.
Number of high-denomination notes in circulation upon introduction of 1-dollar coin	10 billion	8 billion	The Federal Reserve used more current information; reflects increased demand since 1990.
Growth in circulation of notes for next 30 years	5% per year	5% per year	N/A
Average life of 1-dollar note	1.45 years	1.45 years	N/A
Upon introduction of 1-dollar coin and withdrawal of the 1-dollar note, the average life of a 2-dollar note	1.45 years	1.45 years	N/A
Average life of higher denomination note	2.06 years	2.06 years	N/A
Average life of a 1-dollar coin	30 years	30 years	N/A
The percent of value of the demand for 1-dollar notes that would be absorbed by 2-dollar notes.	25%	25%	N/A
Number of coins replacing each 1-dollar note, after deducting 25 percent of the value of 1-dollar notes that would be absorbed by 2-dollar notes.	2 coins	2 coins	N/A
Cost of printing notes per thousand	$35	$26	Increased cost from security thread being included in all notes except ones and fives (cost is now $41 per thousand)
Increase in the Federal Reserve's cost per thousand of acquiring higher denomination notes from BEP upon discontinuing the printing of 1-dollar notes	$8	$7.47	Overall increase in printing and inflation
Cost of producing 1-dollar coins per thousand	$80	$60	The Federal Reserve's figure includes shipping costs to Federal Reserve Banks; GAO's figure does not.
Proportion of coin cost accounted for by metal	80%	80%	N/A
Maximum number of 1-dollar coins the Mint will be able to produce per year	2 billion	2 billion	N/A
Start-up costs the Mint will incur in connection with design and production of the new 1-dollar coin	$20 million	$17.8 million	The Federal Reserve adjusted our figure for two years of inflation.

(continued)

Factors	Federal Reserve	GAO	Reason for difference
Stock of notes in circulation that will be deposited at Federal Reserve banks, on average, per year	1.3 times per year	1.56 times per year	The Federal Reserve used 1991 figures. GAO used 1985-89 data.
Stock of 1-dollar coins in circulation that will be deposited at Federal Reserve banks, on average, per year	30%	72%	GAO used annual average number of quarters processed divided by the number of quarters in circulation each year from 1986 to 1988. The Federal Reserve used quarters in circulation on Dec. 31, 1991, and quarters processed from May 1991 to April 1992.
Federal Reserve's cost of processing deposits per thousand notes/per thousand coins	\$6.90/ \$3.68	\$4.38/ .27	The Federal Reserve's costs include currency destruction, overhead from new facilities, and shipping to Federal Reserve offices for 1991. GAO used actual processing costs from 1985 to 1989.
Federal government's real borrowing rate, the real rate of return on the Federal Reserve's portfolio, and the real rate for discounting future costs and savings to the present	3%	4.61%	The Federal Reserve's figure is an estimate based on historical interest rates for government securities over time. GAO subtracted the 4- percent inflation rate from the 8.61- percent cost of borrowing in 1991.
Transition period	5 years	5 years	N/A
Inflation rate for 30-year period	N/A	4 percent	The Federal Reserve wanted to keep its figures in real terms and did not use an inflation rate.
Coin transportation costs	N/A	\$1.27 per 1,000 coins	The Federal Reserve's shipping costs are included in the coin production costs.
Mint operational costs	20% of annual production costs	20% of annual production costs	N/A

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